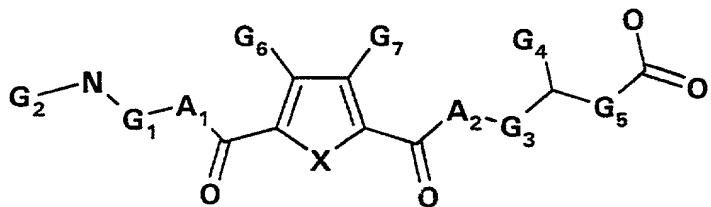


We claim:

1. A compound of the formula:



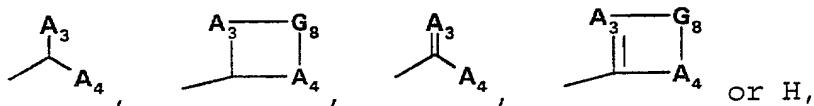
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wherein  $\text{X}$  is selected from the group comprising  $\text{O}$  and  $\text{S}$ ;  
wherein  $\text{A}_1$  and  $\text{A}_2$  are individually selected from the  
group comprising  $\text{O}$ ,  $\text{S}$  and  $\text{N}$ ;

wherein  $\text{G}_1$  and  $\text{G}_3$  are  $\text{C}_{1-4}$  alkyl chains;

10 wherein  $\text{G}_5$  is a  $\text{C}_{0-4}$  alkyl chain;

wherein  $\text{G}_2$  is selected from the group comprising:



15 wherein  $\text{A}_3$  and  $\text{A}_4$  are individually selected from the  
group comprising  $\text{O}$ ,  $\text{N}$ , or  $\text{S}$ , and  $\text{G}_8$  is a  $\text{C}_{1-4}$  alkyl  
chain;

wherein  $\text{G}_4$  is a  $\text{C}_{5-8}$  aryl, a  $\text{C}_{5-8}$  arylsulfonylamino, an  
 $\text{C}_{5-8}$  arylamino; and

20 wherein  $\text{G}_6$  and  $\text{G}_7$  are individually selected from the  
group comprising  $\text{H}$ ,  $\text{F}$ ,  $\text{Cl}$ ,  $\text{I}$ ,  $\text{Br}$  and a  $\text{C}_{1-4}$  alkyl.

2. The compound of claim 1, wherein  $\text{X}$  is  $\text{S}$ .

25 3. The compound of claim 1, wherein  $\text{X}$  is  $\text{O}$ .

4. The compound of claim 1, wherein  $\text{A}_1$  is  $\text{N}$ .

5. The compound of claim 1, wherein  $\text{A}_1$  is  $\text{O}$ .

6. The compound of claim 1, wherein A<sub>2</sub> is N.

7. The compound of claim 1, wherein A<sub>2</sub> is O.

5 8. The compound of claim 1, wherein G<sub>1</sub> is a C<sub>1</sub> alkyl.

9. The compound of claim 1, wherein G<sub>1</sub> is -(CH<sub>2</sub>)<sub>0</sub>-.

10. The compound of claim 1, wherein G<sub>1</sub> is a C<sub>2</sub> alkyl.

10 11. The compound of claim 1, wherein G<sub>1</sub> is a C<sub>3</sub> alkyl.

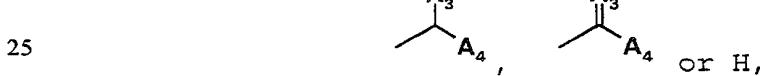
12. The compound of claim 1, wherein G<sub>3</sub> is a C<sub>1</sub> alkyl.

15 13. The compound of claim 1, wherein G<sub>3</sub> is a C<sub>2</sub> alkyl.

14. The compound of claim 1, wherein G<sub>5</sub> is a C<sub>1</sub> alkyl.

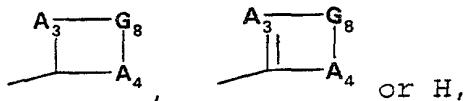
15 15. The compound of claim 1, wherein G<sub>5</sub> is a C<sub>2</sub> alkyl.

20 16. The compound of claim 1, wherein G<sub>2</sub> is represented by the formula:



wherein A<sub>3</sub> is selected from the group comprising O, S and N and A<sub>4</sub> is N.

30 17. The compound of claim 1, wherein G<sub>2</sub> is represented by the formula:



35 wherein A<sub>3</sub> and A<sub>4</sub> are individually selected from the group comprising N or O and G<sub>8</sub> is a C<sub>2-3</sub> alkyl chain.

18. The compound of claim 1, wherein -N-G<sub>2</sub> forms a guanidino containing moiety.

5 19. The compound of claim 1, wherein -N-G<sub>2</sub> forms a urea containing moiety.

20. The compound of claim 1, wherein -N-G<sub>2</sub> forms a cyclic guanidino containing moiety.

10 21. The compound of claim 1, wherein -N-G<sub>2</sub> forms a cyclic urea containing moiety.

15 22. The compound of claim 1, wherein G<sub>4</sub> is phenylsulfonylamino.

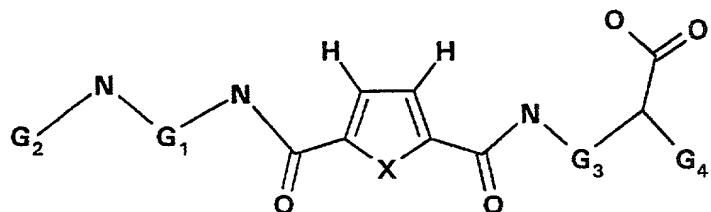
23. The compound of claim 1, wherein G<sub>4</sub> is phenyl.

20 24. The compound of claim 1, wherein G<sub>6</sub> and G<sub>7</sub> are halogens.

25. The compound of claim 1, wherein G<sub>6</sub> and G<sub>7</sub> are the same.

25 26. The compound of claim 1, wherein G<sub>6</sub> or G<sub>7</sub> are F.

27. The compound of claim 1 further represented by the formula:



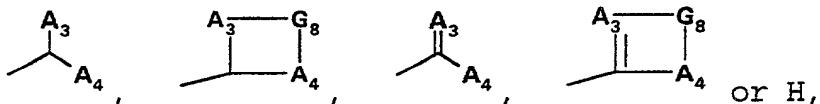
30 wherein X is selected from the group comprising O and S;

$A_1$  and  $A_2$  are individually selected from the group comprising O, S and N;

$G_1$  and  $G_3$  are  $C_{1-4}$  alkyl chains;

$G_2$  is selected from the group comprising:

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wherein  $A_3$  and  $A_4$  are individually selected from the group comprising O, N, or S, and  $G_8$  is a  $C_{1-4}$  alkyl chain;

15

wherein  $G_4$  is a  $C_{5-8}$  aryl, a  $C_{5-8}$  arylsulfonylamino, or a  $C_{5-8}$  arylamino; and

wherein  $G_6$  and  $G_7$  are individually selected from the group comprising H, F, Cl, I, Br and a  $C_{1-4}$  alkyl.

20

28. The compound of claim 26, wherein X is S.

29. The compound of claim 26, wherein X is O.

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30. The compound of claim 26, wherein  $G_1$  is a  $C_1$  alkyl.

31. The compound of claim 26, wherein  $G_1$  is a  $C_2$  alkyl.

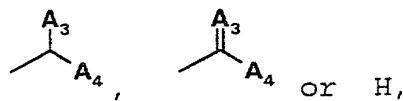
32. The compound of claim 26, wherein  $G_3$  is a  $C_1$  alkyl.

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33. The compound of claim 26, wherein  $G_3$  is a  $C_2$  alkyl.

34. The compound of claim 26, wherein  $G_2$  is represented by the formula:

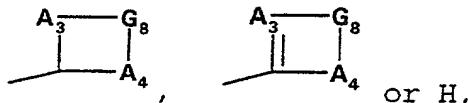
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wherein  $A_3$  is selected from the group comprising O, S and N and  $A_4$  is N.

35. The compound of claim 26, wherein  $G_2$  is represented by the formula:



wherein  $A_3$  and  $A_4$  are individually selected from the group comprising N or O and  $G_8$  is a  $C_{2-3}$  alkyl chain.

10         36. The compound of claim 26, wherein  $-N-G_2$  forms a guanidino containing moiety.

15         37. The compound of claim 26, wherein  $-N-G_2$  forms a urea containing moiety.

15         38. The compound of claim 26, wherein  $-N-G_2$  forms is a cyclic guanidino containing moiety.

20         39. The compound of claim 26, wherein  $-N-G_2$  forms a cyclic urea containing moiety.

40. The compound of claim 26, wherein  $G_4$  is phenylsulfonylamino.

25         41. The compound of claim 26, wherein  $G_4$  is phenyl.

42. A method of treating cancer comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

30         43. A method of treating a tumor comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

44. A method of treating a solid tumor comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

5 45. A method of treating metastasis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

10 46. A method of inhibiting angiogenesis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

15 47. A method of inhibiting fibronectin binding comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

20 48. A method of inhibiting osteopontin binding comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

25 49. A method of treating foot and mouth disease comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

50. A method of treating osteoporosis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

30 51. A method of treating restenosis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

35 52. A method of treating ocular diseases comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

53. A method of treating heart diseases comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

5 54. A method of treating arthritis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

10 55. A method of treating diseases in which abnormal neovascularization occurs comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

15 56. A method of inhibiting  $\alpha_v\beta_3$  integrins comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

20 57. A method of inhibiting  $\alpha_v\beta_3$  integrin comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

25 58. A pharmaceutical composition for treating cancer comprising a pharmaceutically effective amount of a compound of claim 1.

59. A pharmaceutical composition for treating tumor comprising a pharmaceutically effective amount of a compound of claim 1.

30 60. A pharmaceutical composition for treating solid tumor comprising a pharmaceutically effective amount of a compound of claim 1.

35 61. A pharmaceutical composition for treating metastasis comprising a pharmaceutically effective amount of a compound of claim 1.

62. A pharmaceutical composition for inhibiting angiogenesis comprising a pharmaceutically effective amount of a compound of claim 1.

5      63. A pharmaceutical composition for inhibiting fibronectin binding comprising a pharmaceutically effective amount of a compound of claim 1.

10     64. A pharmaceutical composition for inhibiting osteopontin binding comprising a pharmaceutically effective amount of a compound of claim 1.

15     65. A pharmaceutical composition for treating foot and mouth disease comprising a pharmaceutically effective amount of a compound of claim 1.

20     66. A pharmaceutical composition for treating osteoporosis comprising a pharmaceutically effective amount of a compound of claim 1.

25     67. A pharmaceutical composition for treating restenosis comprising a pharmaceutically effective amount of a compound of claim 1.

30     68. A pharmaceutical composition for treating ocular diseases comprising a pharmaceutically effective amount of a compound of claim 1.

35     69. A pharmaceutical composition for treating heart diseases comprising a pharmaceutically effective amount of a compound of claim 1.

70. A pharmaceutical composition for treating arthritis comprising a pharmaceutically effective amount of a compound of claim 1.

71. A pharmaceutical composition for treating diseases in which abnormal neovascularization occurs comprising a pharmaceutically effective amount of a compound of claim 1.

5

72. A pharmaceutical composition for inhibiting  $\alpha_v$  integrins comprising a pharmaceutically effective amount of a compound of claim 1.

10

73. A pharmaceutical composition for inhibiting  $\alpha_v\beta_3$  integrin comprising a pharmaceutically effective amount of a compound of claim 1.

15

74. A combination useful for the treatment of cancer comprising at least one compound of claim 1 with at least one other anticancer agent or antiangiogenic agent.

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75. A combination useful for the treatment of cancer comprising at least one compound of claim 1 with at least one other anticancer agent selected from the group consisting of alkylating agents, antitumor antibiotics, antimetabolites, biological agents, hormonal agents, nitrogen mustard derivatives and plant alkaloids.

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